

USAWC STRATEGY RESEARCH PROJECT

**EFFICIENT OR EFFECTIVE? AN ASSESSMENT OF THE ARMY LESSONS
LEARNED PROGRAM**

by

Colonel Anthony C. Funkhouser
United States Army

Colonel Peter J. Zielinski
Project Adviser

This SRP is submitted in partial fulfillment of the requirements of the Master of Strategic Studies Degree. The U.S. Army War College is accredited by the Commission on Higher Education of the Middle States Association of Colleges and Schools, 3624 Market Street, Philadelphia, PA 19104, (215) 662-5606. The Commission on Higher Education is an institutional accrediting agency recognized by the U.S. Secretary of Education and the Council for Higher Education Accreditation.

The views expressed in this student academic research paper are those of the author and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. Government.

U.S. Army War College
CARLISLE BARRACKS, PENNSYLVANIA 17013

Report Documentation Page			Form Approved OMB No. 0704-0188		
Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.					
1. REPORT DATE 30 MAR 2007		2. REPORT TYPE Strategy Research Project		3. DATES COVERED 00-00-2006 to 00-00-2007	
4. TITLE AND SUBTITLE Efficient or Effective? An Assessment of the Army Lessons Learned Program			5a. CONTRACT NUMBER		
			5b. GRANT NUMBER		
			5c. PROGRAM ELEMENT NUMBER		
6. AUTHOR(S) Anthony Funkhouser			5d. PROJECT NUMBER		
			5e. TASK NUMBER		
			5f. WORK UNIT NUMBER		
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) U.S. Army War College, Carlisle Barracks, Carlisle, PA, 17013-5050			8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)			10. SPONSOR/MONITOR'S ACRONYM(S)		
			11. SPONSOR/MONITOR'S REPORT NUMBER(S)		
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES					
14. ABSTRACT See attached.					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 20	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

ABSTRACT

AUTHOR: Colonel Anthony C. Funkhouser

TITLE: Efficient or Effective? An Assessment of the Army Lessons Learned Program

FORMAT: Strategy Research Project

DATE: 26 March 2007 WORD COUNT: 6,100 PAGES: 20

KEY TERMS: Army Lessons Learned, Doctrine, Tactics, Techniques, Procedures

CLASSIFICATION: Unclassified

The Army recently revised the Army Lessons Learned regulation to centralize the collection, analysis and dissemination of lessons learned. Historically, the Army has not sustained an effective lessons learned process. TRADOC has the lead for the Army in managing this process. TRADOC has attempted to create a more efficient process that may reduce effectiveness during combat operations in OEF and OIF. Today, the Army is facing a significant challenge to quickly capture lessons learned, analyze and redistribute them throughout the Army. Due to the complex environment in OEF/OIF and an adaptive enemy, doctrine and lessons learned are being derived at the unit level, redistributed and changed before TRADOC can adequately address and distribute them through doctrinal publications and military schools. The US Army Engineer School's Counter Explosive Hazard Center is currently integrated into the lesson learned process with regard to improvised explosive devices. The process is modified from the proposed lessons learned process. The Army lessons learned process and the Counter Explosive Hazard Center processes will be analyzed for efficiencies and effectiveness with recommendations provided to improve the current process.

EFFICIENT OR EFFECTIVE? AN ASSESSMENT OF THE ARMY LESSONS LEARNED PROGRAM

General Scott Wallace, the Training and Doctrine Command (TRADOC) Commander, recently published his plan to transform the TRADOC institutions in conjunction with Army transformation plans. General Wallace declared that, "TRADOC's center of gravity is our ability to continue to learn and, as the "Architect of the Army," to adjust how we support the Army's operating force."¹ He has established a campaign plan with TRADOC's objectives. One of TRADOC's major objectives is to reshape the fundamental Army learning process for a dynamic operating environment.² A major component of this objective is the revision of the lesson learned process. General Wallace clearly stated that the Combines Arms Center's Center for Lessons Learned (CALL) would assume increased responsibility for the horizontal distribution of best practices across the Army.³ In response, TRADOC has established the framework for a new lesson learned process within the recently revised and published Army Regulation (AR)11-33, *Army Lessons Learned Program (ALLP)*.

The previous lesson learned process appeared to be inefficient and ineffective. CALL tended to be a repository of lessons and the TRADOC institutions could not incorporate lessons into doctrine in less than two years. TRADOC recognized this shortfall and is seeking to maintain itself as a learning organization. The ALLP is a major means to transform, remain at the forefront of changes, and sustain the Army as a world class military instrument of national power. The ALLP attempts to centralize the collection, analysis and dissemination of lessons learned in a more efficient manner. The ALLP regulation can have tremendous significance in the Army's ability to fight the Global War on Terrorism. It is the means for the US Army to develop the "best practices" to accomplish the mission in theater and impact how our school institutions train the force and capture the lessons into doctrine. The Army must develop the tenets of a learning organization to effectively support the force in this constantly changing environment. Historically, the US Army has only emphasized lessons learned during combat operations. Can the new TRADOC procedures establish the processes for an efficient and effective learning organization within the Army in today's combat operations? Is the current Army process for collecting and disseminating lessons learned still relevant during combat and stability operations such as Operation Enduring Freedom (OEF)/Operation Iraqi Freedom (OIF)?

Dr. George Huber conducted a broad research project for the Army Research Institute for the Behavioral and Social Sciences in 1991. He accomplished an extensive study of the characteristics of organizational learning and its obstacles to success. He integrated many

organizational theories of the leading experts in the field. He concluded that to remain effective and competitive organizations must maintain themselves in a state of frequent, nearly continuous change in structure, processes, domains, goals, etc., even in the face of apparently optimal adaptation.⁴ He concludes that there is not time to rest or the organization will be surpassed by its competitors. The Army can only accomplish the national objectives of our government as long as it can maintain its superiority over other militaries to accomplish national interests. The Army must be a learning organization to maintain its superiority which translates into a deterrent and effective fighting instrument. In recent years, the Army has attempted to conform to this model by developing and updating doctrine quicker than the existing bureaucracies. The Army has historically developed doctrine based on a wide range of inputs to include the changing operational environment, technologies, and theory and experience. The successful compilation of integrating these inputs into best practices and lessons learned results in new doctrine. The preceding methodology for capturing lessons was described in the previous edition of AR11-33 but it was not a formal reporting process. Lessons were submitted voluntarily and integrated based on the institutions assessment of trends in these lessons. Lessons learned have typically been a TRADOC process where lessons are compiled from observations at training centers and integrated into the next doctrinal revision. The revised doctrine was then integrated into training plans and taught throughout the military education system. Today, the Army is facing a significant challenge in its ability to quickly capture lessons learned while at war and integrate them into doctrine and institutional instruction. Due to the complex environment in OEF/OIF and an adaptive enemy, doctrine and lessons learned are being derived at the unit level, redistributed and changed before TRADOC can adequately address and distribute them through doctrinal publications and military schools.

The US Army and its formalized processes for lessons learned has been a relatively recent practice that began during the Korean conflict.⁵ The United States Army has a short history of collecting, evaluating and disseminating lessons learned. Historically, lessons learned have only had relevance during combat operations. Between combat operations, the systems to collect lessons ceased to operate. In World War I, the Army used the G5 position, training inspectors, to collect lessons and distribute them through a series of publications. However, by the end of the war, the role of the G5 changed and the lesson learning processes concluded.⁶ World War II would see the system resuscitated. By 1943, the deployed forces had learned how to report and assess their own usable combat experience.⁷ The force remained intact (no rotation policy) for the preponderance of the war because lessons learned were maintained within the organizations. However, with the rotational policies of Korea and

Viet Nam, lessons learned had greater significance with increased personnel turnover which required constant training for new personnel. The Army held its commanders responsible for reporting usable combat experiences where these lessons could be centralized and institutionalized.⁸ The Korean War was a totally different experience than the Americans had fought in World War I and II. The enemy had more fluid tactics and included guerilla tactics.⁹ The Army had implemented an individual replacement policy and it became imperative to pass on lessons to the training centers, schools and units in order to train new soldiers before they arrived in theater.¹⁰

In 1951, the Army published Special Regulation 525-85-5, Processing of Combat Information. It provided procedures to “ensure the rapid and effective collection, evaluation and application of specific lessons learned in combat operations.”¹¹ Unlike in the past, lessons were not distributed solely to forward units but to training commands and other schools in the US.¹² The Office of the Chief of Army Field Forces (OCAFF) became the central processor of lessons learned. On the other hand, doctrine development was decentralized to the schools that assessed the lessons distributed by OCAFF. The problem is that each branch school had to differentiate between doctrine and technique.¹³ Therefore, schools made judgments and did not always incorporate the lessons into their institutions. However, the good news was that during the Korean conflict, there was an emergence of systematically collecting, evaluating and disseminating lessons learned.¹⁴ Once again, after the conflict, the systemic processes ceased to function until the Army became involved in its next armed conflict more than a decade later.

In Viet Nam, the need to quickly capture lessons reemerged. In 1966, the Army mandated the Operational Report – Lessons Learned (ORLL).¹⁵ This report originated at the Division level and flowed through the chain to HQDA and then was distributed to US Continental Army Command and US Army Combat Development Command.¹⁶ In 1968, the ORLL was expanded to Battalion level for submission.¹⁷ The experience of Viet Nam revealed that lessons learned traveled in both an inner circuit between operational units and an outer circuit through the institutions. By 1975, the processes eroded based on lack of use.

After another decade, the Army leadership was consumed and focused on a Cold War with the Soviet Union. The Army used the National Training Center (NTC) to train for an anticipated confrontation on the plains of Europe. However, the leadership realized that despite the huge investment in the National Training Center, there was no method in place to capture the warfighting lessons coming from that training center.¹⁸ Concurrently, the aftermath of Operation URGENT FURY demonstrated that the services, including the U.S. Army, had no system to capture combat lessons.¹⁹ In 1985, the Center for Army Lessons Learned (CALL)

was established to collect lessons and disseminate them from experiences at the Army training Centers such as NTC.²⁰ CALL became a repository of information and lessons as opposed to a distributor of the lessons to incorporate into the institutions. TRADOC would eventually become the proponent for CALL and these lessons.

The Army made a significant realization by committing resources and sustaining the lesson learned processes, unlike its previous experiences. The Army continues to recognize the value of collecting lessons learned from recent experiences in OEF/OIF. As part of the Army's transformation, TRADOC is the new proponent for this practice and has developed processes to collect, evaluate and integrate these lessons learned into doctrine for practical application. In their attempt to establish a framework and centralize the process, they have defined "lessons learned." TRADOC's Center for Army Lessons Learned (CALL) defines lessons learned as "validated knowledge and experience derived from observations and the historical study of military training, exercises, and combat operations that leads to a change in behavior at either the tactical level of standing operating procedures (SOP), tactics, techniques and procedures (TTP), etc., operational level, or strategic level or in one or more of the Army's DOTMLPF domains."²¹ Once defined they published a centralized process to collect, analyze and disseminate the lessons. The process as outlined in Appendix A of AR11-33 is linear and fundamentally begins with the collection of observations, analysis of the issue, development of an action plan and finally observing the changed behavior.²² TRADOC used Lean/Six Sigma methodologies as a means to develop the most efficient process. They have developed a lesson learned integration (L2I) process that has minimal process steps, reduced complexity, ease of assembly of instructor notes and lessons learned, and a date index to measure progress.²³ Six Sigma methods measure the process as observations, insights and lessons (OILs) move down stream and increase efficiencies. Cost savings identified provide for the reallocation of manpower to other projects.²⁴

The regulation directs all brigade-size and larger units to submit after action reports directly to CALL within specific timelines. This process has aided in the development of current doctrine and tactics, techniques and procedures (TTP) for the Army. Doctrine is being the common framework of how the Army operates based on theory and experience. TTPs are based on doctrinal concepts and provide the details on the placement of forces in conjunction with the enemy and terrain within given circumstances and includes the prescribed steps to accomplish specific tasks. The approved procedure appears to centralize the process for more efficient analysis and dissemination to branches for implementation. The Army process should be analyzed for its ability to capture innovation and lessons in order to become an effective

learning organization that can quickly identify a lesson and develop innovative solutions for the field forces.

There have been many organizational learning models developed in the last 20 years that have influenced the Fortune 500 businesses. Some of the most famous books include *The Fifth Discipline*, *Lean Enterprise* and *Six Sigma*. TRADOC has used the Lean Six Sigma methodology as a fundamental process of their transformation into a more efficient learning organization. We recognize that the Army is not a business for profit but it is a large organization that seeks to maintain its deterrent qualities by maintaining an innovative edge over the nation's enemies. George Huber also writes of learning organizations in a more holistic manner that we will use to examine the ALLP. Huber's learning model attributes are overarching of all the existing organizational models. They have common characteristics and attributes, which we will use to examine the Army organization and its lessons learned processes. We will then examine some common organizational obstacles to learning and assess the ALLP model's ability to overcome those obstacles.

George Huber identifies four essential attributes of a learning organization. First, the organization learns if any of its units acquires knowledge that it recognizes as potentially useful to the organization. Second, organizational learning occurs when more of the organization's components obtain knowledge and recognize it as potentially useful. Third, with regard to information, more organizational learning occurs when greater varied interpretations are developed. Finally, organizational learning occurs when more organizational units develop uniform comprehensions of the various interpretations.²⁵

The first key attribute is that an organization learns if any of its units acquire knowledge that it recognizes as potentially useful to the organization. Knowledge must enter the organization from a source, whether it is from experimenting or from practical experience. Once the knowledge is recognized, it then can be processed. The identification of new knowledge is merely the start point. Organizations begin with embedded knowledge that is inherited from their history and experience. From there, new knowledge enters the system and is assimilated which allows the organization to move toward accomplishing its mission.

The Army historically has focused on accumulating experience and knowledge during periods of combat operations. During periods of peace, the Army sustained itself with legacy knowledge from the last combat experience being passed informally. In the last 20 years, the Army has greater consistency in accumulating knowledge from war and peace time operations and disseminating it throughout the military organizations and institutions. This knowledge has been captured in doctrine and is the basis of much of its culture. Culture being the combination

of shared history, expectations, unwritten rules and social mores that affect the behaviors of everyone. It is the underlying beliefs that color the perceptions of actions and communications.²⁶ Since World War I, the Army's culture has accumulated its knowledge or lessons from combat and daily peacetime operations. During the 1980s through 2001, the Army gained much of its knowledge of warfighting from joint exercises, simulated wargames, observing units at the National Training Centers and limited combat experiences.

Since the establishment of the Army over 200 years ago, it has been an inefficient learning organization. *America's First Battles: 1776-1965* is filled with examples of the Army learning lessons at the expense of initial failure.²⁷ Although the Army had the inputs of knowledge into its subordinate organizations, it lacked the processes to analyze and disseminate the lessons from previous experiences quickly during peacetime operations or prior to combat operations. The lessons learned conducting urban operations in World War II and counterinsurgency operations in Viet Nam were relearned most recently during Operation Iraqi Freedom. Prior to OIF, Army doctrine and TTPs had been updated to reflect operations in the plains of Europe against the Soviet Union. Personnel and units are relearning these lessons and many more while conducting current operations. The challenge is getting the lessons to each unit that needs to know this information. The Army has consistently become a more effective learning organization during periods of combat but has failed to develop a systemic process. It has only been since the Viet Nam conflict that the Army has developed peacetime processes to capture the lessons of the NTC and other training milieus and TRADOC is attempting to formalize a process.

Each branch proponent has responsibility according to AR 5-22, *The Army Proponent System*, for the integration of these lessons. The branch proponent is the commandant or director of the respective school or institution that develops concepts, doctrine, tactics, techniques, procedures, organization designs, materiel requirements, training programs, training support requirements, manpower requirements (except as provided in AR600-3), education requirements, and related matters for a branch in the Army.²⁸ The Army developed CALL in 1985 to become a repository of this information; some relevant, some less. Each unit, branch or individual submitted lessons to their database of lessons learned. There are hundreds of publications and digital documents located within their centralized databases. The revised ALLP takes the branch schools out of the submission process from the field and centralizes it at CALL. CALL will identify lessons with DOTMLPF implications and direct the appropriate action of the branches within the institutional Army.

Fundamentally, the branch proponents have been responsible for the DOTMLPF integration of all new issues, lessons or trends that are identified from the field. The DOTMLPF acronym represents the domains of doctrine, organization, training, materiel, leadership and education, personnel or facilities. The DOTMLPF methodology is a holistic approach to solve an identified problem or vulnerability in the field. Based on the solution, the recommendation is distributed to higher and lower headquarters and formalized in each of the domains to the other branch proponents. Branches tend to develop their own internal solutions to issues that do not cross branch boundaries. Proponents typically use their own historians, lesson learned personnel and chief of doctrine to research the subject for precedent and previous solutions. In the past, each proponent would identify a solution and it would be submitted to CALL, subordinate units and other proponents. Therefore, one proponent could collect field observations and develop solutions for the bigger Army without centralized control. The new ALLP does not preclude any organization from identifying a lesson. But a centralized process may or may not approve the subordinate unit's lesson. This creates a tension within the centralized process and the proponent's responsibilities. Even with this tension, the Army organization is acquiring knowledge and experience which is useful to the entire institution.

Huber's second attribute is that organizational learning occurs when more of the organization's components obtain knowledge and recognize it as potentially useful. He explains that organizations may not be aware of what they know. Knowledge may be decentralized in various components of the organization and unless they have systems in place to access and redistribute, the organization will not accept lessons and move toward increased effectiveness as an organization. Research shows that combining information from different subunits leads not only to new information and knowledge but also to new understanding.²⁹

In the case of the Army, there is much information distributed throughout multiple organizations but it is not always synthesized with information from other units. Many units maintain and archive their lessons into their standing operating procedure without sharing it with other units. Recently knowledge has been distributed throughout numerous knowledge centers. These knowledge centers are on the internet or retained in various units or schools. Knowledge centers on internet sites such as companycommander.com, the battle command knowledge system (BCKS), branch school websites and Army knowledge on line (AKO) are all major sources of information for units to draw information or pass on lessons to be shared. The current ALLP centrally collects all Army lessons in order to vet and conduct the analysis. TRADOC will centrally approve all lessons and disseminate them for doctrinal inclusion. The Army has decided that the only way to synthesize the information and examine its value with

other information is to centralize it. The Army is potentially centralizing all its information with the new ALLP. This may be the most efficient method to collect, centrally control and analyze but there is a cost in time. The DOTMLPF integrator within the institution loses time that could be used to effectively analyze the observations and lessons. A more effective means may be to simultaneously distribute the information to all points within FORSCOM and TRADOC.

Third, with regard to information, more organizational learning occurs when greater varied interpretations are developed. There are many factors that affect and impact an organizations interpretation of information. Each subunit interprets knowledge based on their paradigms. If each subunit uses the same framework, then each will interpret the information the same. However, each subunit, in reality, will interpret information differently based on their experiences and the environment in which they operate. Organizations are also affected by the information load on the system. Interpretation within or across organizational units is less effective if the information exceeds the unit's capacity to process the information adequately.³⁰ Finally, we must consider the amount of unlearning that must occur. The military organization is a bureaucracy with engrained systems or subcultures. These systems are difficult to change and it often requires great effort to unlearn lessons and establish new ones. For example, the intelligence community recently struggled to unlearn how they analyzed the symmetric conventional enemy formations to learning how to template insurgency operations in urban terrain in the current war on terror.

Under the proposed methodology, "Commanders and staff at all echelons have a responsibility to submit observations, insights and lessons learned (OIL) products to CALL. CALL is responsible for disseminating this information to the Army."³¹ Operational units may submit their lessons to their chain of command for identification too. In addition to operational units, lessons may be submitted from training centers and the results of simulations and other exercises. All these lessons are funneled through a centralized repository for the Army; CALL and solutions are recommended through the DOTMLPF domains. The disadvantage is clearly that all trends must be identified and analyzed by a single source which may not be the subject matter expert. The proponency for DOTMLPF domains and the resident expertise remains with the branch commandants.

Huber's fourth and final attribute is that organizational learning occurs when more organizational units develop uniform comprehensions of the various interpretations. Huber explains that the term uniform does not necessarily pertain to the perceived validity of the lesson but rather that the uniform understandings across units allow for different interpretations.³² This information must be uniformly framed across units so they have a

common reference that leads to communication between units and allows for cognitive analysis. This is the most difficult attribute a learning organization must achieve to succeed.

Since Korea, the Army has framed its lessons within doctrine and distributed them in writing for uniform comprehension. It is these publications that have allowed different units to understand the lessons learned and apply them to their particular scenario. If the environment or enemy has a varying effect, they can communicate to their peers and discuss how and why this lesson learned or doctrine may or may not apply to their given situation. After Viet Nam, the Senate Subcommittee on National Security and International Operations heard testimony that stated, "A very small portion of the information was adequately analyzed. We would have been much better off to have a much smaller take of information and to have done a better job of interpreting what that information meant."³³

Today, the ALLP facilitates the uniform framing of new lessons by distributing doctrine and interim publications. The new process seeks to analyze or vet the information before distributing the lessons learned. This frees up units to understand the lessons learned under a common framework and allows them to advance their ideas on how this lesson applies to their organizations. Using this common framework, they can discuss academically between units in the field or between students in school. Today's Army has significantly improved this process since Viet Nam but still has room to improve this process as it progresses through OEF and OIF.

The attributes are clear but are not without challenges. Huber identifies four potential obstacles that organizations must overcome to learn. These are by no means all inclusive but representative of the many obstacles that any organizational processes must overcome to be more efficient and/or effective in learning. The first major obstacle is correlation and causation. It is when the organization's members, as sensors of experience, function imperfectly and draw an unsubstantiated conclusion. As members experience a lesson, they may not consider other factors that may have bearing on an identified observation, insight or lesson. Members may be unaware of cultural, weather, terrain and other factors that influence why some lessons were successful. For example, the NTC observer/controllers often saw units fighting the opposing forces and upon completion of the engagement conducted after action reviews. Units often drew the wrong conclusion to their success or failure because of their limited knowledge of the situation. It often took the entire organization together to discuss the varying perspectives to piece the true causation of success or failure. Therefore, there must be a process that allows a vetting of the information to identify trends. Units in the field may not be aware of the true causes of a lesson learned and may draw the incorrect conclusion based on their myopic view.

The ALLP must have a vetting process with a central subject matter expert to gather and synthesize all the information to properly identify the correct lesson learned.

A second obstacle is bias and subjectivity. This occurs when feedback of the results (observations) of an organizational action is distorted or suppressed. Lessons may be based on the perspective of the unit submitting them. The same task from different perspectives may be reported as a completely different lesson. Also, the challenge with multiple subunits submitting and exchanging lessons is that lessons posted may be unvetted by subject matter experts. For instance, a Captain operating in Baghdad may pass on his unit's approved method to conduct a route clearance. Another Captain may retrieve this information before discovering that another unit is conducting a varied method best suited for operations in a rural area. Some forums are not controlled and should not be considered approved lessons. There must be an organization to reconcile and vet lessons or the lessons may be passed on to other organizations which will learn the wrong lessons.

A third obstacle to learning is time and timing. Learning is inhibited when information arrives after the need for learning as a basis for changing has passed. The process may become too bureaucratic and slow. The ALLP will constantly receive data and lessons from the various deployed units. Unit after actions reports may be lengthy and take time to analyze. It will take time to identify trends and submit them to the DOTMLPF proponent to develop solutions and integrate them into the Army education system. This centralized process is too slow and ineffective for timely dissemination. A consideration is mandatory reporting across FORSCOM, TRADOC to include all school proponentcies. Branch schools often develop functional courses to train soldiers on a specific lesson learned quickly until it can be integrated into the basic institutional education system. This is time consuming and unresourced in most cases by TRADOC. A simultaneous distribution of lessons in a network centric fashion may allow for parallel analysis, dialogue and initiative at the lowest levels to identify and develop the best institutional support to lessons learned.

A final obstacle may be access. Units capable of learning from experience of other units may not have access to a peer organization's experience. In Koenig's book, *Knowledge Management: Lessons Learned*, he explains that its human nature to be frustrated if searching for information on a database if it takes more than three clicks to reach their objective.³⁴ Also, a large complex database may prove too difficult for users to access, particularly if they use the incorrect search terms versus unit slang. Also, CALL must compete with various other websites from branch schools, independent databases and blogs sites. Unless CALL can centralize them or at least link them in a network centric fashion, the information may or may not be accessed.

Users accessing the lesson learned database must be trained and educated on what they are accessing. They must have a means to validate the lesson they are retrieving has been vetted by experts.

George Huber's analysis is widely accepted by the Army Research Institute as a well researched and thoughtful analysis. His learning organization attributes are integrated into many current authors to include Peter Senge who wrote the *Fifth Discipline*. The Army in general and TRADOC in specific should consider his analysis as they develop the new ALLP. However, the Army is a complex learning organization compared to civilian organizations. The ALLP process may be too streamlined for efficiency for this complex organization. Its complexity lends itself toward a more effective approach that improves itself from the Korea and Viet Nam era processes and leverages the network centric approach of this new century to adhere to Huber's required attributes to successfully accomplish the Army mission.

The Army can potentially overcome Huber's obstacles and truly continue to transition as a learning organization by identifying these flaws in the current ALLP system. The US Army Engineer School is one example of how lessons learned are currently being processed. The Commanding General of the Maneuver Support Center at Fort Leonard Wood, Missouri is the proponent for IED training in TRADOC. He executes this process within the Army Engineer School's Counter Explosive Hazard Center (CEHC). CEHC is the Army integrator of all countermeasures involving explosive hazards. It is a functional course developed to train engineers in the current methods for dealing with explosive hazards. With the strategic dilemma of improvised explosive devices (IED) in theater, the CEHC has become the central point for DOTMLPF integration and execution of training based on current and relevant lessons learned. It has developed a hasty and deliberate method of capturing lessons and dialoging directly with the units that perform the route clearance missions. The CEHC is linked to organizations around the world and exchanges information directly on a daily basis.

The lesson learned process has become very complex in practical application with input and output from various sources. CEHC, within this complex Army system, collects lessons from various sources. These sources may range directly from the combat theater via video-teleconferences to homestation units sending input through email. The lessons may come from mission debriefs or field teams in country. CEHC conducts assistance visits directly with the units in the field to interview, observe and collect their first hand knowledge. They also collect from unit after action reports (AAR), other lesson learned centers within combatant commands, and other organizations such as the explosive ordnance community. They collect from secure

intelligence sites from the national level down to unit situation reports. The most difficult task is then the vetting or validation of the information from all these sources.³⁵

CEHC has a unique TTP/Lesson Learned Validation and Integration Process where these TTPs or lessons are validated for different purposes. For example, a TTP that successfully defeats vehicle borne IEDs at established checkpoints in urban environments must be validated: 1) for use immediately in theater by other units; 2) for near immediate use at Udari Range in Kuwait and other Coalition and Joint Reception, Staging, Onward movement and Integration (CJRSOI) locations; 3) for use very quickly at the Combat Training Centers (CTC) and other mission readiness exercise (MRE) locations; 4) for use by Commanders at home station training updated Combined Arms Training Strategies (CATS)/ training and evaluation outlines (T&EO); 5) for use in training support plans (TSP) being trained to leaders and Soldiers in initial military training (IMT) and professional military education (PME) and 6) for use in doctrinal publications.³⁶ Each of these "validations" is performed by a different group with different criteria - but the decisions must be synchronized. The key is that an Army recognized lead must be assigned for each validation described for the major types/categories of actions the Army undertakes like IED defeat or Counter Sniper. These leads must establish the right network of experts to conduct the validation of a new or changed TTP/Lesson learned. These leads must also remain closely tied together to stay synchronized, thereby ensuring proper and progressive training of Soldiers, leaders, units moving through the Army Force Generation process (ARFORGEN).³⁷ In the case of IEDs, CALL's role is primarily one of collection, analysis, and dissemination. They do not perform validation.

Another factor is that a Combatant Commander owns his TTP/Lesson learned process in theater. His process takes precedent over the ALLP regulation. The IED Defeat Joint Center of Excellence (JCOE) leads the MREs for IEDD TTP/Lessons learned validation and implementation. The Maneuver Support Center (MANSCEN) and the US Army Engineer School (USAES) leads the TRADOC IED Defeat network as the proponent for IED Defeat in TRADOC.³⁸ CEHC are the subject matter experts (SME). Within this process, CEHC validates the lessons with their staff of SMEs based on their identified information requirements. The lessons they identify are analyzed against existing and other raw lessons. They examine the information and set about establishing linkages and an architecture. They use this framework to then filter, sort and prioritize the lessons based on topical alignment, timeliness of the lesson and geographic areas. They conduct the DOTMLPF analysis then vet the most meaningful lessons and recommend them as updated tactics, techniques and procedures or doctrine. Using the identified framework, they recommend integrated solutions within the context of the

current enemy behavior, the environment and the friendly situation.³⁹ This approach accomplishes an open network across the Army while at the same time creating a disciplined validation and integration process. It appears to be working for IED Defeat and may be the framework for other major lesson learned domains.

Finally, CEHC disseminates the validated lessons and TTPs through a plethora of means to the Army community. Venues for dissemination include through the lesson learned community such as CALL and headquarters of the combatant commanders and other services. They distribute the lessons to the institutional training developers, other unclassified and classified web portals and to the training centers. They aggressively share the information through video-teleconferences with units and publications. They also share with allies and the international community.⁴⁰ They are the Army experts in this field. They strive to establish network connectivity with all communities involved in dealing with countering explosive hazards and saving soldier lives in theater.

Overall, the Army's new ALLP regulation is potentially a good first step toward establishing an efficient system to collect, analyze and disseminate Army lessons learned. CEHC and the Maneuver Support Center at Fort Leonard Wood, Missouri is merely one subsystem of a huge and complex organization participating in the ALLP. The Army has made a great stride in emphasizing the lesson learned process and attempting to centralize the effort. The Army's desire to mainstream the process and reduce overhead is the most efficient means to overcome Huber's identified obstacles. However, it is not the most effective use of personnel and resources to return lessons learned back to the field. CEHC is an example of the current process being too complex to be centrally managed. The Army has hundreds of tasks it is required to perform. Expertise resides at the lower levels within the branch institutions to process the information that arrives from the myriad sources. CALL can maintain decentralized control but a centrally executed system may be an unreasonable expectation.

TRADOC should reconsider its lesson learned program during combat and peacetime operations to be possibly less efficient and more effective. What the Army may gain in manpower efficiencies is lost in time for analysis and dissemination. The Army should consider supplementing its existing ALLP with a network-centric process with multiple lines of reporting to the respective combatant commander, TRADOC and the proponents for the particular lessons. This allows for parallel and simultaneous collection and analysis. CALL may remain the center of the focus of the network but it should decentralize the process to the subject matter experts and consider their recommendations for incorporation into doctrine or TTPs. Also, the Army should consider developing a forcing mechanism to overcome sporadic reporting. Mandatory

reporting aligned with a routine period would allow a systemic approach that reduces the culture of pulling information and lessons to a culture of effective lesson sharing. The new ALLP is structurally efficient on the one hand but inherently inefficient due to the complexity of the organization and the location of its resident expertise. TRADOC should leverage its ALLP resources to establish a decentralized network that links all tactical units with the training institutions to more effectively collect, analyze and disseminate lessons learned through subject matter experts not through the funnel of CALL.

The Army Lesson Learned Program has come a long way in the last 60 years. From our days in Korea with an inconsistent process to the new ALLP that is more centralized and systematic. The Army has recognized the need to transform the process in order to leverage the characteristics of a learning organization, particularly as we fight the global war on terror. Analyzing the ALLP with Doctor Huber's attributes reveals that TRADOC has made a good attempt at establishing a process that incorporates the efficiencies of the Lean Six Sigma methodologies. However, TRADOC should reconsider the complexities of the Army organization and the issues it confronts. TRADOC should balance the efficiencies it seeks to gain with ways to be more effective for the units and institutions it serves by leveraging the network centric links to where its subject matter experts are located. Then TRADOC could execute a process that is best optimized between efficiency and effectiveness.

Endnotes

¹ William S. Wallace, "Victory Starts Here! Changing TRADOC to Meet the Needs of the Army," *Military Review* (May-June 2006): 59.

² *Ibid*, 61.

³ *Ibid*, 64.

⁴ George P. Huber, "Organizational Learning: The Contributing Processes and Literatures," *Organizational Science* (Vol. 2, No. 1, Special Issue, 1991): 93.

⁵ Dennis J. Vetock, *Lessons Learned: A History of US Army Lesson Learning* (Carlisle Barracks, PA: US Army Military History Institute, 1988), 6.

⁶ *Ibid*, 50.

⁷ *Ibid*, 62.

⁸ *Ibid*, 55.

⁹ *Ibid*, 76.

¹⁰ Ibid, 77.

¹¹ Ibid, 82.

¹² Ibid, 83.

¹³ Ibid, 84.

¹⁴ Ibid, pg 86.

¹⁵ Ibid, pg 105.

¹⁶ Ibid, pg 105.

¹⁷ Ibid, pg 105.

¹⁸ "History Of The Army's Lessons Learned System," available from http://www.globalsecurity.org/military/library/report/call/call_97-13_history.htm; Internet; accessed 22 February 2007.

¹⁹ Ibid, 22 February 2007.

²⁰ Ibid, 22 February 2007.

²¹ U.S. Department of the Army, *Army Programs: Army Lessons Learned Program (ALLP)*, Army Regulation 11-33 (Washington, D.C.: U.S. Department of the Army, 17 October 2006), 4-5.

²² (Appendix A, AR11-33, fig 4-1)

²³ Reggie Snodgrass, Center for Engineer Lessons Learned, Directorate of Training, U.S. Army Engineer School, e-mail to author, 2 November 2006.

²⁴ Snodgrass, 2 November 2006.

²⁵ Huber, 89-90.

²⁶ Michael E. D. Koenig and T. Kanti Srikantaiah, eds., *Knowledge Management Lessons Learned: What Works and What Doesn't* (Medford, New Jersey: Information Today, Inc., 2004), 59.

²⁷ Charles E. Heller and William A. Stofft, eds., *America's First Battles, 1776-1965* (Lawrence, KS: University Press of Kansas, 1986)

²⁸ U.S. Department of the Army, *The Army Proponent System*, Army Regulation 5-22 (Washington, D.C.: U.S. Department of the Army, 3 October 1986), 1.

²⁹ Huber, 101.

³⁰ Ibid, 103.

³¹ AR11-33, section 4-6 Reporting.

³² Huber, 90.

³³ Ibid, 104.

³⁴ Koenig, 65.

³⁵ Kent Savre, Lieutenant Colonel, Director for the Counter Explosive Hazard Center, e-mail to author, 14 October 2006.

³⁶ Paul Kelly, Colonel, Director of Training, US Army Engineer School, e-mail to author, 17 February 2007.

³⁷ Kelly, 17 February 2007.

³⁸ Ibid, 17 February 2007.

³⁹ Savre, 14 October 2006.

⁴⁰ Ibid, 14 October 2006.